

10/087,066

=> d his

(FILE 'HOME' ENTERED AT 17:04:24 ON 12 DEC 2002) ✓

FILE 'REGISTRY' ENTERED AT 17:04:29 ON 12 DEC 2002

L1               STRUCTURE UPLOADED  
L2               0 S L1 SSS SAM  
L3               902 S L1 SSS FUL

FILE 'CAPLUS' ENTERED AT 17:06:45 ON 12 DEC 2002

L4               224 S L3  
L5               131645 S HERBICID? OR AGRIC? OR AGRONOM?  
L6               11 S L4 AND L5

FILE 'CAOLD' ENTERED AT 17:10:02 ON 12 DEC 2002

=> s l3

L7               0 L3

=> log y

COST IN U.S. DOLLARS

SINCE FILE  
ENTRY

TOTAL  
SESSION

FULL ESTIMATED COST

0.38

197.15

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE  
ENTRY

TOTAL  
SESSION

CA SUBSCRIBER PRICE

0.00

-6.82

STN INTERNATIONAL LOGOFF AT 17:10:32 ON 12 DEC 2002

L6 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2002 ACS

AN 1995:665000 CAPLUS

DN 123:55906

TI Picolinic acid derivatives and their **herbicidal** compositions

IN Takabe, Fumiaki; Saito, Yoshihiro; Tamaru, Masatoshi; Tachikawa, Shigehiko; Hanai, Ryo

PA Kumiai Chemical Industry Co., Ltd., Japan; Ihara Chemical Industry Co., Ltd.

SO U.S., 19 pp. Cont.-in-part of U.S. Ser. No. 842,163, abandoned.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 4

|      | PATENT NO.     | KIND | DATE     | APPLICATION NO. | DATE     |
|------|----------------|------|----------|-----------------|----------|
| PI   | US 5391537     | A    | 19950221 | US 1992-960844  | 19921014 |
|      | US 5403816     | A    | 19950404 | US 1993-48516   | 19930420 |
| PRAI | JP 1990-288180 | A    | 19901025 |                 |          |
|      | US 1992-842163 | B2   | 19920331 |                 |          |
|      | JP 1992-129376 | A    | 19920423 |                 |          |
|      | US 1992-960844 | A2   | 19921014 |                 |          |

OS MARPAT 123:55906

AB The present invention is to provide a novel picolinic acid deriv. having the formula I or a salt thereof wherein R is a hydrogen atom, a (C1-C4) alkyl group, a (C2-C4) alkenyl group, a (C2-C4) alkynyl group, a benzyl group, a halogen-substituted (C1-C4) alkyl group, a cyano (C1-C4)alkyl group, a (C1-C4) alkoxy (C1-C4) alkyl group, a (C1-C4) alkoxycarbonyloxy (C1-C4) alkyl group, a (C1-C4) alkyl group, a cyclo (C4-C7) alkylcarbonyloxy (C1-C4) alkyl group, a cyclo (C3-C6) alkyl (C1-C4) alkyl group, an alkali metal atom selected from the group consisting of sodium and potassium, an alkali earth metal atom or an org. amine cation selected from the group consisting of a (C1-C4) alkylamino and a di-(C1-C4) alkylamine; R1 and R2 are the same or different, and are a (C1-C4) alkyl group, a (C1-C4) alkoxy group, a halogen atom, a halogen-substituted (C1-C4) alkoxy group or a (C1-C4) alkylsulfonyl group; X = NR3R4 wherein R3, R4 are the same or different and are, e.g., H, C1-4 alkyl, Ph; Y = O, NR5 wherein R5 is a hydrogen atom or a formyl group; and n is 0 or 1; provided that when X is a hydrogen atom, Y is a group having the formula NCHO; a method for prepg. the same; and a **herbicidal** compn. contg. the same as an active ingredient. The picolinic acid deriv. or the salt thereof of the present invention achieves an excellent **herbicidal** effect at a low dosage, and is effective for controlling the growth of various weeds in a wide range. The picolinic acid deriv. or the salt thereof of the present invention can be applied to a paddy field, a cultivated field, a non-agricultural land and the like as a **herbicidal** compn. Thus, e.g., reaction of Me 6-(N,N-dimethylamino)-3-hydroxypicolinate with 4,6-dimethoxy-2-methylsulfonylpyrimidine afforded Me 3-(4,6-dimethoxypyrimidin-2-yl)oxy-6-(N,N-dimethylamino)picolinate in 66% yield which showed at least 90% growth control of barnyardgrass, monochoria, and bulrush.

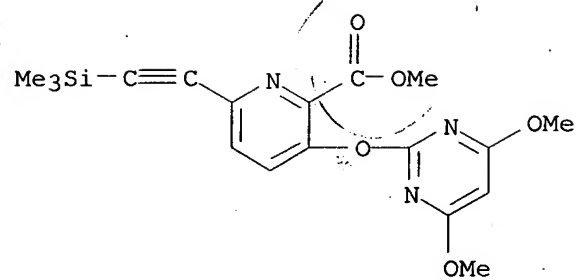
IT 143941-12-2P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (**herbicidal** picolinic acid derivs.)

RN 143941-12-2 CAPLUS

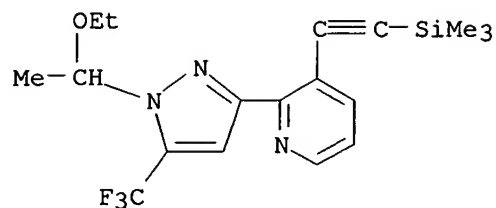
CN 2-Pyridinecarboxylic acid, 3-[(4,6-dimethoxy-2-pyrimidinyl)oxy]-6-[(trimethylsilyl)ethynyl]-, methyl ester (9CI) (CA INDEX NAME)

10/087,066



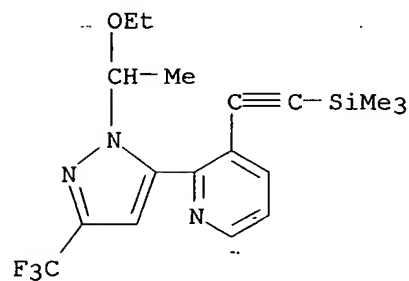
L6 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2002 ACS  
 AN 1997:294598 CAPLUS  
 DN 126:277476  
 TI Preparation of pyrazole compounds as agrohorticultural fungicides  
 IN Hagiwara, Kenji; Suzuki, Hiroshi; Takada, Mitsumasa; Iihama, Teruyuki;  
 Sano, Shinsuke; Shimoda, Susumu  
 PA Nippon Soda Co., Ltd., Japan; Hagiwara, Kenji; Suzuki, Hiroshi; Takada,  
 Mitsumasa; Iihama, Teruyuki; Sano, Shinsuke; Shimoda, Susumu  
 SO PCT Int. Appl., 85 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

|      | PATENT NO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | KIND | DATE     | APPLICATION NO. | DATE     |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|-----------------|----------|
| PI   | WO 9711943                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | A1   | 19970403 | WO 1996-JP2776  | 19960926 |
|      | W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE,<br>ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KR, KZ, LK, LR, LS, LT,<br>LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,<br>SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG,<br>KZ, MD, RU, TJ, TM<br>RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,<br>IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN                                                                                                                                                                                                                                                                                                                               |      |          |                 |          |
|      | AU 9670954                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | A1   | 19970417 | AU 1996-70954   | 19960926 |
| PRAI | JP 1995-271807                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      | 19950926 |                 |          |
|      | JP 1996-31277                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      | 19960125 |                 |          |
|      | JP 1996-157511                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      | 19960529 |                 |          |
|      | WO 1996-JP2776                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      | 19960926 |                 |          |
| OS   | MARPAT 126:277476                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |          |                 |          |
| AB   | The title compds. (I; R1 = C1-6 haloalkyl or alkoxycarbonyl, cyano, etc.;<br>R2 = H, a metal atom, C1-6 alkyl or alkoxy, etc.; X = H, halo, NO2, C1-6<br>alkyl, etc.; Ar = 2-pyridyl, 2-pyrazyl, 2-pyrimidyl, or 2-thiazolyl group,<br>these groups being optionally substituted with halo, C1-6 alkyl, C1-6<br>alkenyl, C1-6 alkynyl, C3-5 cycloalkyl, C1-6 alkoxy, C1-6 haloalkyl, etc.,<br>excluding the case wherein R1 = CF3, Ar = 2-pyridyl, X = R2 = H) and salts<br>thereof are prepd. I, having an excellent fungicidal activity, are useful<br>for <b>agriculture</b> and horticulture. Thus, pyridine deriv. (II)<br>was reacted with N2H4 in AcOH to give the title compd. (III). III at 200<br>ppm showed > 75% fungicidal effect for Botrytis cinerea. |      |          |                 |          |
| IT   | 188918-62-9P 188918-63-0P 188918-64-1P<br>188918-65-2P 188919-61-1P 188920-07-2P<br>188920-09-4P 188920-18-5P 188920-27-6P<br>188920-39-0P 188920-41-4P 188920-45-8P<br>188920-51-6P<br>RL: AGR (Agricultural use); BAC (Biological activity or effector, except<br>adverse); BSU (Biological study, unclassified); SPN (Synthetic<br>preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)<br>(prepn. of pyrazole compds. as agrohorticultural fungicides)                                                                                                                                                                                                                                                                                         |      |          |                 |          |
| RN   | 188918-62-9 CAPLUS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |          |                 |          |
| CN   | Pyridine, 2-[1-(1-ethoxyethyl)-5-(trifluoromethyl)-1H-pyrazol-3-yl]-3-<br>[(trimethylsilyl)ethynyl]- (9CI) (CA INDEX NAME)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |          |                 |          |



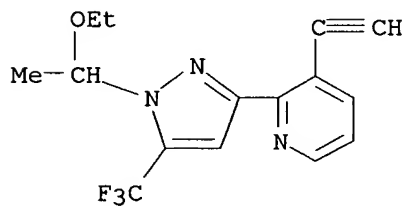
RN 188918-63-0 CAPLUS

CN Pyridine, 2-[1-(1-ethoxyethyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3-ethynyl- (9CI) (CA INDEX NAME)



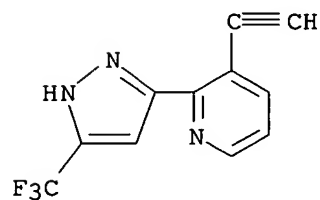
RN 188918-64-1 CAPLUS

CN Pyridine, 2-[1-(1-ethoxyethyl)-5-(trifluoromethyl)-1H-pyrazol-3-yl]-3-ethynyl- (9CI) (CA INDEX NAME)



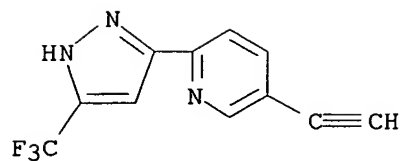
RN 188918-65-2 CAPLUS

CN Pyridine, 3-ethynyl-2-[5-(trifluoromethyl)-1H-pyrazol-3-yl]- (9CI) (CA INDEX NAME)



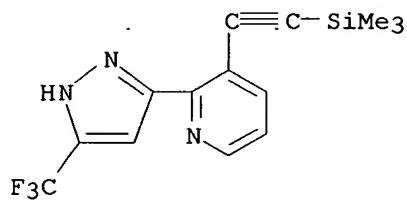
RN 188919-61-1 CAPLUS

CN Pyridine, 5-ethynyl-2-[5-(trifluoromethyl)-1H-pyrazol-3-yl]- (9CI) (CA INDEX NAME)



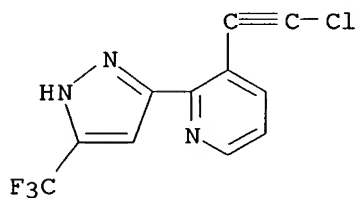
RN 188920-07-2 CAPLUS

CN Pyridine, 2-[5-(trifluoromethyl)-1H-pyrazol-3-yl]-3-[(trimethylsilyl)ethynyl]- (9CI) (CA INDEX NAME)



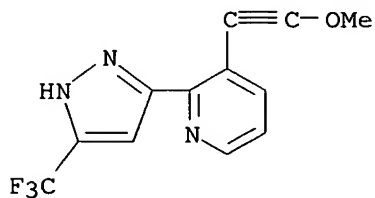
RN 188920-09-4 CAPLUS

CN Pyridine, 3-(chloroethynyl)-2-[5-(trifluoromethyl)-1H-pyrazol-3-yl]- (9CI) (CA INDEX NAME)



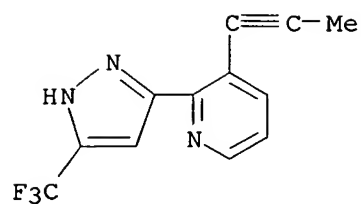
RN 188920-18-5 CAPLUS

CN Pyridine, 3-(methoxyethynyl)-2-[5-(trifluoromethyl)-1H-pyrazol-3-yl]- (9CI) (CA INDEX NAME)



RN 188920-27-6 CAPLUS

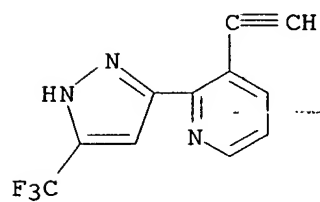
CN Pyridine, 3-(1-propynyl)-2-[5-(trifluoromethyl)-1H-pyrazol-3-yl]- (9CI) (CA INDEX NAME)



RN 188920-39-0 CAPLUS  
 CN Pyridine, 3-ethynyl-2-[5-(trifluoromethyl)-1H-pyrazol-3-yl]-,  
 monomethanesulfonate (9CI) (CA INDEX NAME)

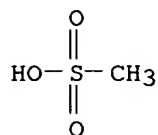
CM 1

CRN 188918-65-2  
 CMF C11 H6 F3 N3

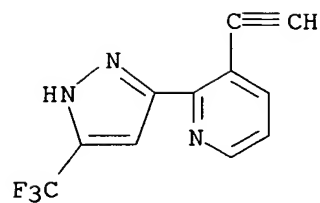


CM 2

CRN 75-75-2  
 CMF C H4 O3 S



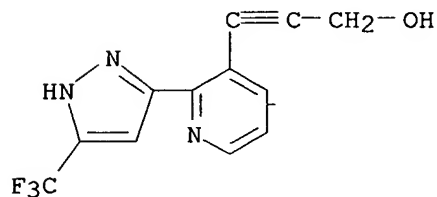
RN 188920-41-4 CAPLUS  
 CN Pyridine, 3-ethynyl-2-[5-(trifluoromethyl)-1H-pyrazol-3-yl]-,  
 monohydrochloride (9CI) (CA INDEX NAME)



● HCl

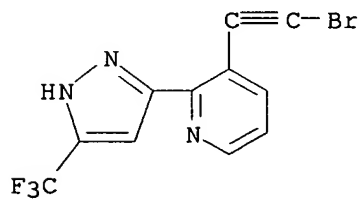
RN 188920-45-8 CAPLUS

CN 2-Propyn-1-ol, 3-[2-[5-(trifluoromethyl)-1H-pyrazol-3-yl]-3-pyridinyl]-  
(9CI) (CA INDEX NAME)



RN 188920-51-6 CAPLUS

CN Pyridine, 3-(bromoethynyl)-2-[5-(trifluoromethyl)-1H-pyrazol-3-yl]- (9CI)  
(CA INDEX NAME)





L6 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2002 ACS

AN 1999:64794 CAPLUS

DN 130:95555

TI Preparation of 5-(2-pyridyl)-1,2,4-triazole compounds as  
**agricultural** and horticultural germicidesIN Hagiwara, Kenji; Aihara, Toshio; Tanigawa, Hisashi; Sano, Shinsuke;  
Shimoda, Susumu; Sano, Hiroshi

PA Nippon Soda Co., Ltd., Japan

SO PCT Int. Appl., 55 pp.

CODEN: PIXXD2

DT Patent

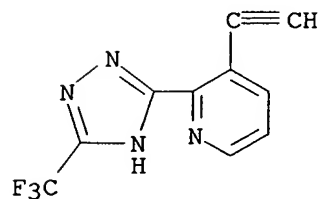
LA Japanese

FAN.CNT 1

|      | PATENT NO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | KIND | DATE     | APPLICATION NO. | DATE     |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|-----------------|----------|
| PI   | WO 9902518                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | A1   | 19990121 | WO 1998-JP3085  | 19980709 |
|      | W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,<br>DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KR,<br>KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ,<br>PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG,<br>US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM<br>RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,<br>FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,<br>CM, GA, GN, GW, ML, MR, NE, SN, TD, TG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |          |                 |          |
|      | AU 9881278                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | A1   | 19990208 | AU 1998-81278   | 19980709 |
| PRAI | JP 1997-202546                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      | 19970711 |                 |          |
|      | JP 1997-285851                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      | 19971017 |                 |          |
|      | WO 1998-JP3085                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      | 19980709 |                 |          |
| OS   | CASREACT 130:95555; MARPAT 130:95555                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |          |                 |          |
| AB   | <p>Pyridyltriazole compds. of general formula (I) [wherein X is cyano, CHO, halogeno, C1-6 haloalkyl, thiocarbamoyl, hydroxyiminomethyl, or C1-6 alkoxyiminomethyl; Y is H, cyano, NO2, halo, C1-15 alkyl, C1-6 alkoxy, C1-6 haloalkyl, C2-6 alkenyl, C2-6 haloalkenyl, C2-6 alkynyl, di(C1-6 alkyl)amino, C3-6 cycloalkyl, C3-6 cycloalkylmethyl, C1-6 alkylthio, C1-6 alkylsulfinyl, C1-6 alkylsulfonyl, hydroxy-C1-6 alkyl, C1-6 alkoxyiminomethyl, or C1-6 alkoxyethyleneamino; and R is hydrogen, C1-6 alkylcarbonyl, C1-6 alkylcarbonyloxy-C1-4 alkyl, C1-6 alkoxy-C1-4 alkyl, C1-6 alkoxy carbonyl, C1-6 alkylsulfonyl, di(C1-6 alkyl)carbamoyl, di(C1-6 alkyl)sulfamoyl, C7-12 aralkylcarbonyloxy-C1-4 alkyl, or optionally substituted benzoyl or benzoyloxy-C1-4 alkyl; n = 1-4] are prepd. by cyclocondensation of 2-cyanopyridines (II; Y, n = same as above) with N-(C1-6 haloalkylcarbonyl)hydrazine X1CONHNH2 (X1 = C1-6 haloalkyl). They are prepd. in an industrially advantageous manner and are safely and effectively used as agrochem. fungicides. Thus, 0.28 g 28% NaOMe in MeOH was added dropwise to a mixt. of 0.71 g 5-cyclopropyl-2-cyanopyridine, 0.72 g N-(trifluoroacetyl)hydrazine hydrate, and 10 mL ethanol, refluxed for 1 h, and after distg. off the solvent, heated at 130.degree. overnight to give the title compd. (III). III at 200 ppm controlled .gtoreq.75% <i>Venturia inaequalis</i> in apple seedlings, <i>Botrytis cinerea</i> on cucumber seedlings, <i>Plasmopara viticola</i> on grape vine seedlings, and <i>Erysiphe graminis</i> f.sp. <i>tritici</i> on wheat seedlings.</p> |      |          |                 |          |
| IT   | 219508-41-5P 219508-45-9P 219508-69-7P<br>219509-25-8P 219509-46-3P<br>RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)<br>(prepn. of pyridyltriazole compds. by cyclocondensation of<br>cyanopyridines with (haloalkylcarbonyl) hydrazine as                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |          |                 |          |

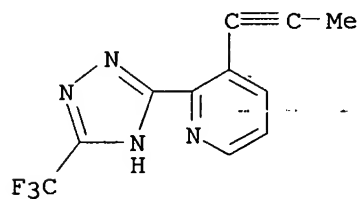
**agricultural and horticultural germicides)**

RN 219508-41-5 CAPLUS

CN Pyridine, 3-ethynyl-2-[5-(trifluoromethyl)-1H-1,2,4-triazol-3-yl]- (9CI)  
(CA INDEX NAME)

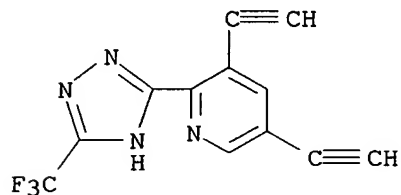
RN 219508-45-9 CAPLUS

CN Pyridine, 3-(1-propynyl)-2-[5-(trifluoromethyl)-1H-1,2,4-triazol-3-yl]- (9CI) (CA INDEX NAME)



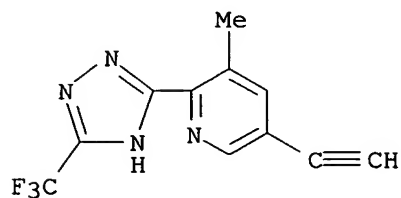
RN 219508-69-7 CAPLUS

CN Pyridine, 3,5-diethynyl-2-[5-(trifluoromethyl)-1H-1,2,4-triazol-3-yl]- (9CI) (CA INDEX NAME)



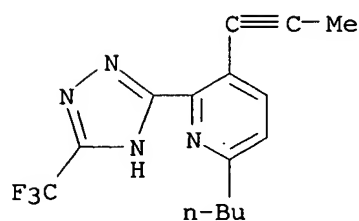
RN 219509-25-8 CAPLUS

CN Pyridine, 5-ethynyl-3-methyl-2-[5-(trifluoromethyl)-1H-1,2,4-triazol-3-yl]- (9CI) (CA INDEX NAME)



RN 219509-46-3 CAPLUS

CN Pyridine, 6-butyl-3-(1-propynyl)-2-[5-(trifluoromethyl)-1H-1,2,4-triazol-3-yl]- (9CI) (CA INDEX NAME)



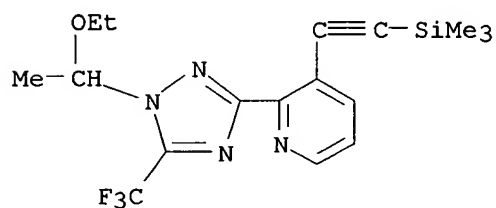
IT 219509-69-0P 219509-70-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of pyridyltriazole compds. by cyclocondensation of cyanopyridines with (haloalkylcarbonyl) hydrazine as agricultural and horticultural germicides)

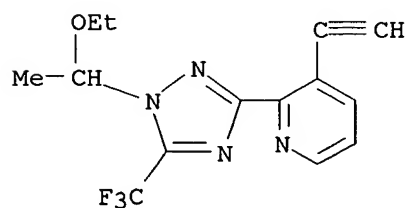
RN 219509-69-0 CAPLUS

CN Pyridine, 2-[1-(1-ethoxyethyl)-5-(trifluoromethyl)-1H-1,2,4-triazol-3-yl]-3-[(trimethylsilyl)ethynyl]- (9CI) (CA INDEX NAME)



RN 219509-70-3 CAPLUS

CN Pyridine, 2-[1-(1-ethoxyethyl)-5-(trifluoromethyl)-1H-1,2,4-triazol-3-yl]-3-ethynyl- (9CI) (CA INDEX NAME)



RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=&gt; d his

(FILE 'HOME' ENTERED AT 17:16:44 ON 12 DEC 2002)

FILE 'REGISTRY' ENTERED AT 17:16:49 ON 12 DEC 2002

L1               STRUCTURE UPLOADED  
 L2               26 S L1 SSS SAM  
 L3               STRUCTURE UPLOADED  
 L4               6 S L3 SSS SAM  
 L5               138 S L3 SSS FUL

FILE 'CAPLUS' ENTERED AT 17:21:02 ON 12 DEC 2002

L6               50 S L5

FILE 'CAOLD' ENTERED AT 17:22:01 ON 12 DEC 2002

=&gt; s 15

L7               0 L5

=&gt; log y

COST IN U.S. DOLLARS

SINCE FILE  
ENTRYTOTAL  
SESSION

FULL ESTIMATED COST

0.38

363.39

DISCOUNT AMOUNTS" (FOR QUALIFYING ACCOUNTS)

SINCE FILE  
ENTRYTOTAL  
SESSION

CA SUBSCRIBER PRICE

0.00

-30.98

STN INTERNATIONAL LOGOFF AT 17:22:13 ON 12 DEC 2002

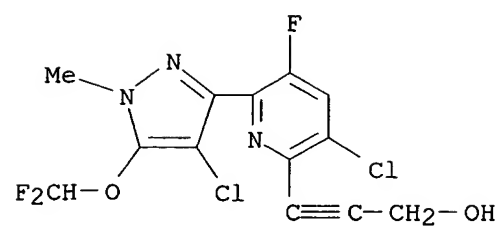
L6 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2002 ACS  
 AN 1998:341557 CAPLUS  
 DN 129:27898  
 TI Preparation of pyridylpyrazoles as **herbicides**  
 IN Nebel, Kurt; Brunner, Hans-Georg; Schurter, Rolf  
 PA Novartis A.-G., Switz.; Nebel, Kurt; Brunner, Hans-Georg; Schurter, Rolf  
 SO PCT Int. Appl., 181 pp.  
 CODEN: PIXXD2

DT Patent  
 LA English

FAN.CNT 1

|      | PATENT NO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | KIND                                                                                                                                                                                                                                                                                                                   | DATE     | APPLICATION NO. | DATE     |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------|----------|
| PI   | WO 9821199                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | A2                                                                                                                                                                                                                                                                                                                     | 19980522 | WO 1997-EP6243  | 19971110 |
|      | W:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |          |                 |          |
|      | RW:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG                                                                                                                                                             |          |                 |          |
|      | AU 9855514                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | A1                                                                                                                                                                                                                                                                                                                     | 19980603 | AU 1998-55514   | 19971110 |
|      | AU 725228                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | B2                                                                                                                                                                                                                                                                                                                     | 20001012 |                 |          |
|      | EP 941222                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | A2                                                                                                                                                                                                                                                                                                                     | 19990915 | EP 1997-951878  | 19971110 |
|      | R:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | CH, DE, ES, FR, GB, IT, LI                                                                                                                                                                                                                                                                                             |          |                 |          |
|      | CN 1237166                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | A                                                                                                                                                                                                                                                                                                                      | 19991201 | CN 1997-199634  | 19971110 |
|      | BR 9713027                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | A                                                                                                                                                                                                                                                                                                                      | 20000125 | BR 1997-13027   | 19971110 |
|      | JP 2001503762                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | T2                                                                                                                                                                                                                                                                                                                     | 20010321 | JP 1998-522159  | 19971110 |
|      | ZA 9710127                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | A                                                                                                                                                                                                                                                                                                                      | 19980512 | ZA 1997-10127   | 19971111 |
|      | US 6204221                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | B1                                                                                                                                                                                                                                                                                                                     | 20010320 | US 1999-297783  | 19990507 |
|      | KR 2000053201                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | A                                                                                                                                                                                                                                                                                                                      | 20000825 | KR 1999-704168  | 19990511 |
| PRAI | CH 1996-2797                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | A                                                                                                                                                                                                                                                                                                                      | 19961112 |                 |          |
|      | WO 1997-EP6243                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | W                                                                                                                                                                                                                                                                                                                      | 19971110 |                 |          |
| OS   | MARPAT 129:27898                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                        |          |                 |          |
| AB   | Title compds. I (in which A = N, N:O; R = H, Cl, CH <sub>3</sub> , etc.; R <sub>1</sub> = H, F, Cl, CHO, NO <sub>2</sub> , etc.; R <sub>2</sub> = H, CH <sub>3</sub> , OCH <sub>3</sub> , OCH <sub>2</sub> CCH, etc.; R <sub>3</sub> = H, CH <sub>3</sub> , alkyl, etc. R <sub>4</sub> = OCF <sub>3</sub> , CF <sub>3</sub> , CN, SOCH <sub>3</sub> , COOH, etc.; R <sub>5</sub> = Cl, Br, CHO, etc.) as well as agrochem. tolerated salts and stereoisomers of these compds. are prepd. through carboxylation, rearrangement, esterification, etc. The formulation examples of emulsion, wettable powders, and granules of these compds. as <b>herbicidal</b> substances were described. |                                                                                                                                                                                                                                                                                                                        |          |                 |          |
| IT   | <b>207994-44-3P</b><br>RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of pyridylpyrazoles as <b>herbicides</b> )                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                        |          |                 |          |
| RN   | 207994-44-3 CAPLUS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                        |          |                 |          |
| CN   | 2-Propyn-1-ol, 3-[3-chloro-6-[4-chloro-5-(difluoromethoxy)-1-methyl-1H-pyrazol-3-yl]-5-fluoro-2-pyridinyl]- (9CI) (CA INDEX NAME)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                        |          |                 |          |

10/087,066

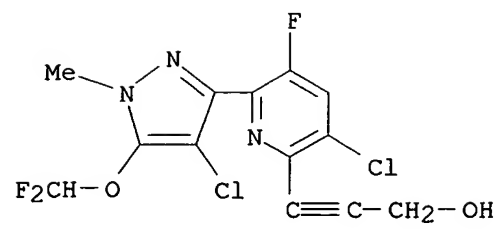


L6 ANSWER 19 OF 50 CAPLUS COPYRIGHT 2002 ACS  
 AN 1998:341557 CAPLUS  
 DN 129:27898  
 TI Preparation of pyridylpyrazoles as herbicides  
 IN Nebel, Kurt; Brunner, Hans-Georg; Schurter, Rolf  
 PA Novartis A.-G., Switz.; Nebel, Kurt; Brunner, Hans-Georg; Schurter, Rolf  
 SO PCT Int. Appl., 181 pp.  
 CODEN: PIXXD2

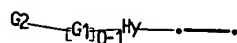
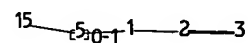
DT Patent  
 LA English

FAN.CNT 1

|      | PATENT NO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | KIND | DATE     | APPLICATION NO.                                                                                                                                                                                                                                                                                                        | DATE     |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| PI   | WO 9821199                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | A2   | 19980522 | WO 1997-EP6243                                                                                                                                                                                                                                                                                                         | 19971110 |
|      | W:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |          | AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |          |
|      | RW:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |          | GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG                                                                                                                                                             |          |
|      | AU 9855514                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | A1   | 19980603 | AU 1998-55514                                                                                                                                                                                                                                                                                                          | 19971110 |
|      | AU 725228                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | B2   | 20001012 |                                                                                                                                                                                                                                                                                                                        |          |
|      | EP 941222                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | A2   | 19990915 | EP 1997-951878                                                                                                                                                                                                                                                                                                         | 19971110 |
|      | R:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |          | CH, DE, ES, FR, GB, IT, LI                                                                                                                                                                                                                                                                                             |          |
|      | CN 1237166                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | A    | 19991201 | CN 1997-199634                                                                                                                                                                                                                                                                                                         | 19971110 |
|      | BR 9713027                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | A    | 20000125 | BR 1997-13027                                                                                                                                                                                                                                                                                                          | 19971110 |
|      | JP 2001503762                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | T2   | 20010321 | JP 1998-522159                                                                                                                                                                                                                                                                                                         | 19971110 |
|      | ZA 9710127                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | A    | 19980512 | ZA 1997-10127                                                                                                                                                                                                                                                                                                          | 19971111 |
|      | US 6204221                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | B1   | 20010320 | US 1999-297783                                                                                                                                                                                                                                                                                                         | 19990507 |
|      | KR 2000053201                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | A    | 20000825 | KR 1999-704168                                                                                                                                                                                                                                                                                                         | 19990511 |
| PRAI | CH 1996-2797                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | A    | 19961112 |                                                                                                                                                                                                                                                                                                                        |          |
|      | WO 1997-EP6243                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | W    | 19971110 |                                                                                                                                                                                                                                                                                                                        |          |
| OS   | MARPAT 129:27898                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |          |                                                                                                                                                                                                                                                                                                                        |          |
| AB   | Title compds. I (in which A = N, N:O; R = H, Cl, CH <sub>3</sub> , etc.; R <sub>1</sub> = H, F, Cl, CHO, NO <sub>2</sub> , etc.; R <sub>2</sub> = H, CH <sub>3</sub> , OCH <sub>3</sub> , OCH <sub>2</sub> CCH, etc.; R <sub>3</sub> = H, CH <sub>3</sub> , alkyl, etc. R <sub>4</sub> = OCF <sub>3</sub> , CF <sub>3</sub> , CN, SOCH <sub>3</sub> , COOH, etc.; R <sub>5</sub> = Cl, Br, CHO, etc.) as well as agrochem. tolerated salts and stereoisomers of these compds. are prepd. through carboxylation, rearrangement, esterification, etc. The formulation examples of emulsion, wettable powders, and granules of these compds. as herbicidal substances were described. |      |          |                                                                                                                                                                                                                                                                                                                        |          |
| IT   | <b>207994-44-3P</b><br>RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of pyridylpyrazoles as herbicides)                                                                                                                                                                                                                                                                                                                                                                                                   |      |          |                                                                                                                                                                                                                                                                                                                        |          |
| RN   | 207994-44-3 CAPLUS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |          |                                                                                                                                                                                                                                                                                                                        |          |
| CN   | 2-Propyn-1-ol, 3-[3-chloro-6-[4-chloro-5-(difluoromethoxy)-1-methyl-1H-pyrazol-3-yl]-5-fluoro-2-pyridinyl]- (9CI) (CA INDEX NAME)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |      |          |                                                                                                                                                                                                                                                                                                                        |          |





a<sup>3</sup>Hy<sup>a1</sup>Hy<sup>a2</sup>8 a<sup>3</sup>6 a<sup>1</sup>7 a<sup>2</sup>

chain nodes :

1 2 3 5 6 7 8 15

chain bonds :

1-2 1-5 2-3 5-15

exact/norm bonds :

1-2 1-5 5-15

exact bonds :

2-3

G1:O,S

G2:[\*1],[\*2],[\*3]

Match level :

1:Atom 2:CLASS 3:CLASS 5:CLASS 6:Atom 7:Atom 8:Atom 15:CLASS

Generic attributes :

1:

Saturation : Unsaturated

Number of Carbon Atoms : less than 7

Number of Hetero Atoms : less than 2

Type of Ring System : Monocyclic

6:

Saturation : Unsaturated

Number of Carbon Atoms : less than 7

Type of Ring System : Monocyclic

7:

Saturation : Unsaturated

Number of Carbon Atoms : less than 7

Number of Hetero Atoms : less than 2

Type of Ring System : Monocyclic

8:

Saturation : Unsaturated

Element Count :

Node 1: Limited

C,C5

N,N1

O,O0

S,S0

Node 6: Limited

N,N1

C,C1-5

S,S0

O,O0

Node 7: Limited

C,C4

S,S1

O,O0

N,N0

=&gt;

Uploading 10087066.str

L1        STRUCTURE UPLOADED

=&gt; d l1

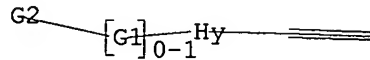
L1 HAS NO ANSWERS

L1                STR

Cb <sup>3</sup>

Hy 1

Hy 2



G1 O,S

G2 [01],[02],[03]

Structure attributes must be viewed using STN Express query preparation.

=&gt; s l1 sss sam

SAMPLE SEARCH INITIATED 17:04:52 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 16494 TO ITERATE

6.1% PROCESSED        1000 ITERATIONS  
 INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
 SEARCH TIME: 00.00.01

0 ANSWERS

FULL FILE PROJECTIONS:    ONLINE    \*\*COMPLETE\*\*  
                               BATCH    \*\*COMPLETE\*\*  
 PROJECTED ITERATIONS:        322203 TO    337557  
 PROJECTED ANSWERS:                0 TO        0

L2                0 SEA SSS SAM L1

=&gt; s l1 sss ful

FULL SEARCH INITIATED 17:06:06 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 332308 TO ITERATE

100.0% PROCESSED    332308 ITERATIONS  
 SEARCH TIME: 00.00.05

902 ANSWERS

L3            902 SEA SSS FUL L1

=> s 13

L4            224 L3

=> s herbicid? or agric? or agronom?

76646 HERBICID?

54068 AGRIC?

4401 AGRONOM?

L5            131645 HERBICID? OR AGRIC? OR AGRONOM?

=> s 14 and 15

L6            11 L4 AND L5

=> d 16 1-11 bib,ab,hitstr

L6 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2002 ACS  
 AN 2002:693101 CAPLUS  
 DN 137:212312  
 TI **Herbicidal** 2-alkynyl-pyri(mi)dines  
 IN Maier, Thomas  
 PA BASF Aktiengesellschaft, Germany  
 SO Eur. Pat. Appl., 28 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 FAN.CNT 1

|      | PATENT NO.                                                                                                | KIND | DATE     | APPLICATION NO. | DATE     |
|------|-----------------------------------------------------------------------------------------------------------|------|----------|-----------------|----------|
| PI   | EP 1238586                                                                                                | A1   | 20020911 | EP 2002-3518    | 20020215 |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR |      |          |                 |          |
|      | JP 2002322006                                                                                             | A2   | 20021108 | JP 2002-59386   | 20020305 |
| PRAI | US 2001-274755P                                                                                           | P    | 20010309 | ← Prov.         |          |

OS MARPAT 137:212312

AB A method of combating undesired plant growth at a locus comprises application to the locus of an effective amt. of at least one compd. I (R1 = (un)substituted alkyl, alkenyl, alkynyl, alkoxy,alkoxyalkyl, alkoxyalkoxy, haloalkyl, haloalkoxy, cyano, nitro, SF5, etc.; R3 = H, formyl, (un)substituted alkyl, alkenyl, trihydrocarbylsilyl, aryl, (un)substituted 5- or 6-membered nitrogen-contg. heteroarom. group; A = (un)substituted aryl, (un)substituted 5- or 6-membered nitrogen-contg. heteroarom. group, or (un)substituted thienyl; Z = O, S or single bond; X = N or CR2 (R2 = H, or R2 = R1); m = 0, 1, or 2) and the **agronomically** acceptable salts or N-oxides thereof, or **herbicidal** compns. contg. such compds. as active ingredients.

IT 457057-31-7 457057-33-9 457057-34-0

457057-35-1 457057-36-2 457057-37-3

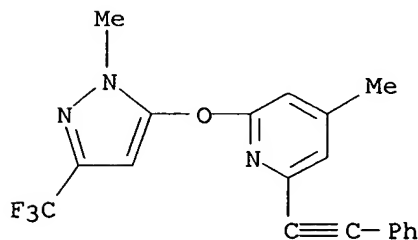
457057-40-8

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(**herbicide**)

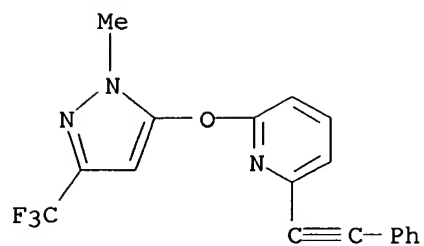
RN 457057-31-7 CAPLUS

CN Pyridine, 4-methyl-2-[[1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl]oxy]-6-(phenylethynyl)- (9CI) (CA INDEX NAME)



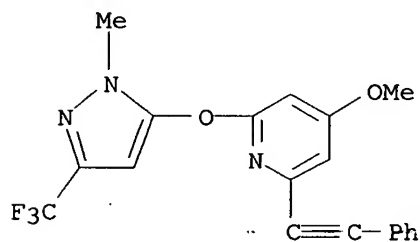
RN 457057-33-9 CAPLUS

CN Pyridine, 2-[[1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl]oxy]-6-(phenylethynyl)- (9CI) (CA INDEX NAME)



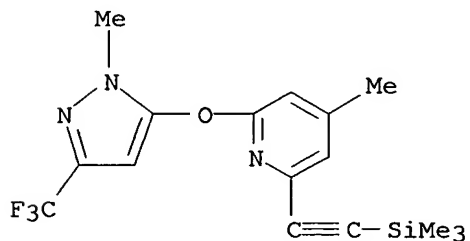
RN 457057-34-0 CAPLUS

CN Pyridine, 4-methoxy-2-[[1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl]oxy]-6-(phenylethynyl)- (9CI) (CA INDEX NAME)



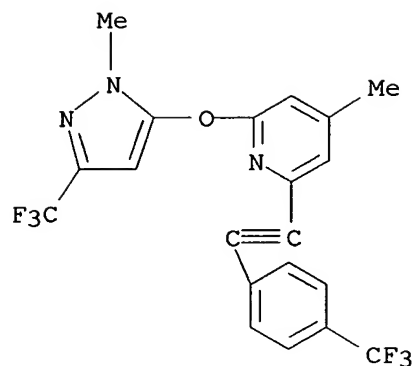
RN 457057-35-1 CAPLUS

CN Pyridine, 4-methyl-2-[[1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl]oxy]-6-[(trimethylsilyl)ethynyl]- (9CI) (CA INDEX NAME)

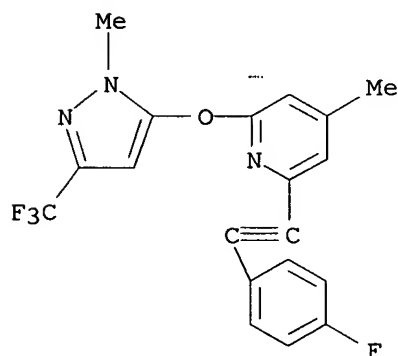


RN 457057-36-2 CAPLUS

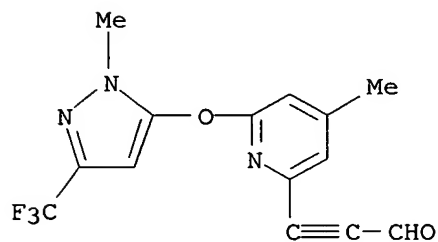
CN Pyridine, 4-methyl-2-[[1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl]oxy]-6-[[4-(trifluoromethyl)phenyl]ethynyl]- (9CI) (CA INDEX NAME)



RN 457057-37-3 CAPLUS  
 CN Pyridine, 2-[(4-fluorophenyl)ethynyl]-4-methyl-6-[[1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl]oxy]- (9CI) (CA INDEX NAME)

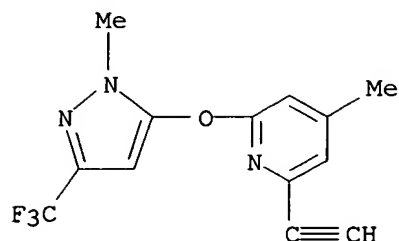


RN 457057-40-8 CAPLUS  
 CN 2-Propynal, 3-[4-methyl-6-[[1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl]oxy]-2-pyridinyl]- (9CI) (CA INDEX NAME)



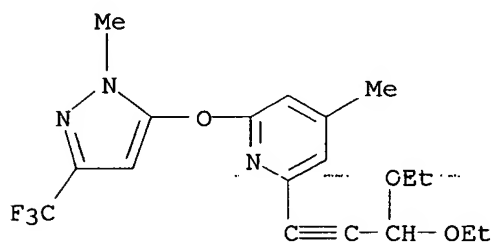
IT **457057-38-4 457057-39-5**  
 RL: AGR (Agricultural use); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)  
 (**herbicide**)  
 RN 457057-38-4 CAPLUS  
 CN Pyridine, 2-ethynyl-4-methyl-6-[[1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-

yl]oxy]- (9CI) (CA INDEX NAME)



RN 457057-39-5 CAPLUS

CN Pyridine, 2-(3,3-diethoxy-1-propynyl)-4-methyl-6-[[1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl]oxy]- (9CI) (CA INDEX NAME)

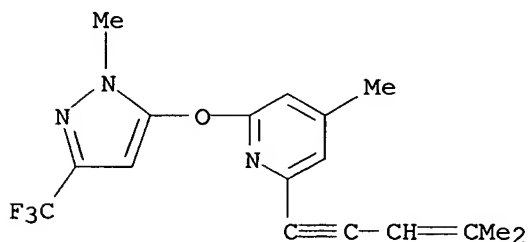


IT 457057-41-9P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. as **herbicide**)

RN 457057-41-9 CAPLUS

CN Pyridine, 4-methyl-2-(4-methyl-3-penten-1-ynyl)-6-[[1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl]oxy]- (9CI) (CA INDEX NAME)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT



L6 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2002 ACS

AN 1998:650966 CAPLUS

DN 129:330725

TI Preparation of pyridylpyrazoles as microbicides for agriculture and gardening

IN Hagiwara, Kenji; Takada, Mitsumasa; Iihama, Teruyuki; Sano, Shinsuke; Shimoda, Susumu; Horikoshi, Yuji

PA Nippon Soda Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 23 pp.

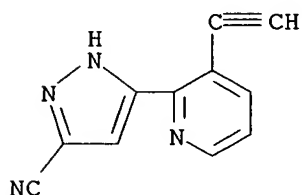
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

|    | PATENT NO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | KIND | DATE     | APPLICATION NO. | DATE     |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|-----------------|----------|
| PI | JP 10265471                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | A2   | 19981006 | JP 1997-85878   | 19970319 |
| OS | MARPAT 129:330725                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |          |                 |          |
| AB | Title compds. I (X = H, halo, cyano, C1-6 (halo)alkyl, etc.; R = H, metal, C1-6 alkylcarbonyl, C1-6 alkylcarbonyloxymethyl, etc.; R substitutes N in pyrazole ring; Z = halo, cyano, C1-6 (halo)alkyl, C 2-6 alkenyl, etc.; m = 1-4) or their salts are prepd. and a part of them are prepd. by reaction of pyridylpyrazoles II [A = (R1O)2CH; X1 = H, C1-6 alkyl; R1 = C1-6 alkyl; Z, m = same as I] with hydroxylamine and dehydration of II (A = HON:CH; X1, Z, m = same as above). 3-Diethoxymethyl-5-(3-chloro-2-pyridyl)pyrazole (prepn. given) was reacted with hydroxylamine hydrochloride in EtOH under reflux for 4 h to give 65% 3-hydroxyiminomethyl-5-(3-chloro-2-pyridyl)pyrazole, which was dehydrated with Ac2O at 110.degree. for 4 h to give 77% 3-cyano-5-(3-chloro-2-pyridyl)pyrazole. The compd. showed good microbicidal activity on crops. |      |          |                 |          |
| IT | <b>215234-47-2P</b><br>RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)<br>(prepn. of pyridylpyrazoles by imination of alkoxyethylpyridylpyrazoles and dehydration)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |          |                 |          |
| RN | 215234-47-2 CAPLUS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |          |                 |          |
| CN | 1H-Pyrazole-3-carbonitrile, 5-(3-ethynyl-2-pyridinyl)- (9CI) (CA INDEX NAME)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |          |                 |          |



L6 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2002 ACS

AN 1995:380295 CAPLUS

DN 122:160668

TI Preparation of picolinic acid derivatives as **herbicides**

IN Takabe, Fumiaki; Saito, Yoshihiro; Tamaru, Masatoshi; Tachikawa, Shigehiko; Yoshida, Ryo

PA Kumiai Chemical Industry Co, Japan; Ihara Chemical Ind Co

SO Jpn. Kokai Tokkyo Koho, 34 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|----|-------------|------|----------|-----------------|----------|
| PI | JP 06316574 | A2   | 19941115 | JP 1991-302644  | 19911023 |
|    | JP 2779720  | B2   | 19980723 |                 |          |

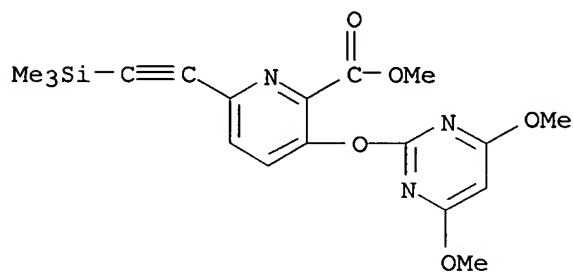
OS CASREACT 122:160668; MARPAT 122:160668

AB Title compds. I [R1 = H, alkyl, alkenyl, alkynyl, benzyl, haloalkyl, cyanoalkyl, etc.; R2 = H, alkyl, alkoxy, halo, haloalkoxy, alkylsulfonyl, R ; X = (un)substituted amino, etc.; Y = O, S, (un)substituted imino; n = 0, 1] are prepd. Thus, Me 6-(dimethylamino)-3-hydroxypicolinate was treated with 4,6-dimethoxy-2-(methylsulfonyl)pyrimidine in DMF contg. K2CO3 was heated at 90.degree. for 2 h to give 66% the title compd. I [X = 6-dimethylamino, Y = O, R = Me, R1 = R2 = MeO, n = 0]. This at 100 g/10 are effected 100% kill against Cyperus difformis.

IT **143941-12-2P**  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of picolinic acid derivs. as **herbicides**)

RN 143941-12-2 CAPLUS

CN 2-Pyridinecarboxylic acid, 3-[(4,6-dimethoxy-2-pyrimidinyl)oxy]-6-[(trimethylsilyl)ethynyl]-, methyl ester (9CI) (CA INDEX NAME)



Same as #6

L6 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2002 ACS

AN 1994:8609 CAPLUS

DN 120:8609

TI Preparation of (pyrimidinyloxy)picolinic acid analogs as  
**herbicides**IN Takabe, Fumiaki; Saito, Yoshihiro; Tamaru, Masatoshi; Tachikawa,  
Shigehiko; Hanai, RyoPA Kumiai Chemical Industry Co., Ltd., Japan; Ihara Chemical Industry Co.,  
Ltd.

SO PCT Int. Appl., 49 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

|      | PATENT NO.            | KIND | DATE     | APPLICATION NO. | DATE     |
|------|-----------------------|------|----------|-----------------|----------|
| PI   | WO 9312109            | A1   | 19930624 | WO 1991-JP1725  | 19911218 |
|      | W: BR, HU, PL, RO, SU |      |          |                 |          |
|      | HU 64321              | A2   | 19931228 | HU 1992-1294    | 19911218 |
|      | HU 213623             | B    | 19970828 |                 |          |
|      | BR 9106704            | A    | 19940322 | BR 1991-6704    | 19911218 |
|      | RO 109848             | B1   | 19950630 | RO 1927-92205   | 19911218 |
|      | RO 109848             | B1   | 19950630 | RO 1992-527     | 19911218 |
|      | PL 169374             | B1   | 19960731 | PL 1991-295868  | 19911218 |
|      | RU 2091380            | CI   | 19970927 | RU 1991-5011967 | 19911218 |
| PRAI | WO 1991-JP1725        | A    | 19911218 |                 |          |

OS MARPAT 120:8609

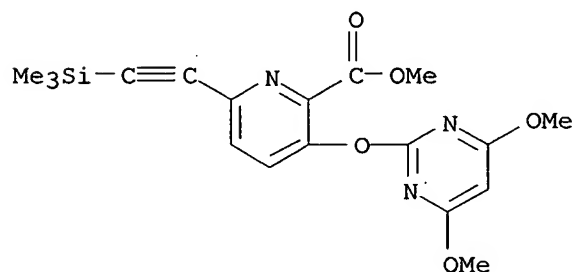
AB Title compds. I [R = H, alkyl, alkenyl, benzyl, haloalkyl, etc.; R1, R2 = alkyl, alkoxy, halo, haloalkoxy, alkylsulfonyl; X = (un)substituted amino, phenoxy, haloalkyl, alkoxy, etc.; Y = O, S, (un)substituted amino; n = 0, 1] are prep'd. E.g., a mixt. of Me 6-(dimethylamino)-3-hydroxypicolinate (prepn. given), 4,6-dimethoxy-2-methylsulfonylpyrimidine, and K2CO3 in DMF was heated at 90.degree. for 2 h to give 66% I [R = Me, R1 = R2 = MeO, X = 6-Me2N, Y = O, n = 0], which at 100 g/ha effect .gtoreq.95% kill against Monochoria vaginalis. Many formulations contg. I are described.

IT **143941-12-2P**

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of, as **herbicide**)

RN 143941-12-2 CAPLUS

CN 2-Pyridinecarboxylic acid, 3-[(4,6-dimethoxy-2-pyrimidinyl)oxy]-6-  
[(trimethylsilyl)ethynyl]-, methyl ester (9CI) (CA INDEX NAME)



Same as #6.

L6 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2002 ACS  
 AN 1993:6984 CAPLUS  
 DN 118:6984  
 TI Preparation of (pyrimidinyloxy- and -thio)picolinic acid derivatives as  
**herbicides**  
 IN Takabe, Fumiaki; Saito, Yoshihiro; Tamaru, Masatoshi; Tachikawa,  
 Shigehiko; Hanai, Ryo  
 PA Kumiai Chemical Industry Co., Ltd., Japan; Ihara Chemical Industry Co.,  
 Ltd.  
 SO PCT Int. Appl., 47 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA Japanese  
 FAN.CNT 4

|      | PATENT NO.                                             | KIND | DATE     | APPLICATION NO. | DATE     |
|------|--------------------------------------------------------|------|----------|-----------------|----------|
| PI   | WO 9207846                                             | A1   | 19920514 | WO 1991-JP1459  | 19911025 |
|      | W: AU, CA, US                                          |      |          |                 |          |
|      | RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE |      |          |                 |          |
|      | CA 2066641                                             | AA   | 19920426 | CA 1991-2066641 | 19911025 |
|      | AU 9187473                                             | A1   | 19920526 | AU 1991-87473   | 19911025 |
|      | AU 640283                                              | B2   | 19930819 |                 |          |
|      | EP 507962                                              | A1   | 19921014 | EP 1991-918910  | 19911025 |
|      | EP 507962                                              | B1   | 20010613 |                 |          |
|      | R: DE, FR, GB                                          |      |          |                 |          |
| PRAI | JP 1990-288180                                         | A    | 19901025 |                 |          |
|      | WO 1991-JP1459                                         | A    | 19911025 |                 |          |

OS MARPAT 118:6984

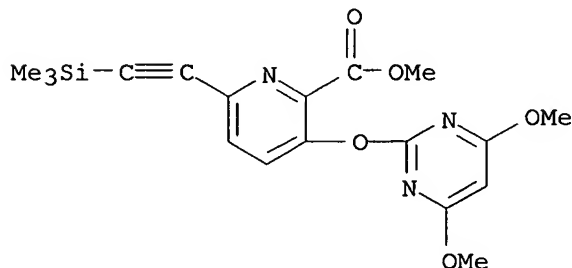
AB The title compds. [I; R = H, alkyl, etc.; R1, R2 = alkyl, alkoxy, etc.; Y = O, S, etc.; X = cyano, PhO, etc.; n = 0, 1] are prepd. A mixt. of picolinate II, sulfone III, and K2CO3 in DMF was heated 2 h at 90.degree. to give 66% I (R = Me, R1 = R2 = MeO, X = 6-Me2N, Y = O, n = 0), which killed >90% barnyard grass, Monochoria vaginalis, and Scirpus juncoides.

IT **143941-12-2P**

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of, as **herbicide**)

RN 143941-12-2 CAPLUS

CN 2-Pyridinecarboxylic acid, 3-[(4,6-dimethoxy-2-pyrimidinyl)oxy]-6-[(trimethylsilyl)ethynyl]-, methyl ester (9CI) (CA INDEX NAME)



*Same as #6*

L6 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2002 ACS  
 AN 1992:128680 CAPLUS  
 DN 116:128680  
 TI Preparation of 2,6-diarylpyridine derivatives as **herbicides**  
 IN Yanagi, Akihiko; Heinemann, Ulrich; Babczinski, Peter; Luerksen, Klaus;  
 Santel, Hans Joachim; Schmidt, Robert R.  
 PA Bayer A.-G., Germany  
 SO Eur. Pat. Appl., 50 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA German  
 FAN.CNT 1

|      | PATENT NO.                            | KIND | DATE     | APPLICATION NO. | DATE     |
|------|---------------------------------------|------|----------|-----------------|----------|
| PI   | EP 463492                             | A1   | 19920102 | EP 1991-109714  | 19910613 |
|      | R: BE, CH, DE, ES, FR, GB, IT, LI, NL |      |          |                 |          |
|      | DE 4020257                            | A1   | 19920102 | DE 1990-4020257 | 19900626 |
|      | JP 04230259                           | A2   | 19920819 | JP 1991-174682  | 19910620 |
| PRAI | DE 1990-4020257                       |      | 19900626 |                 |          |

OS MARPAT 116:128680

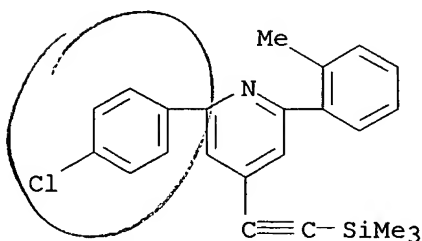
AB Diarylpyridines I [R1, R2 = H, halo, alkyl, alkoxy, haloalkyl; R3 = H, halo, cyano, alkyl, alkoxy, haloalkyl; R4, R5 = H, alkyl; Z = alkyl, alkenyl, alkynyl, alkoxy, alkenyloxy, alkylthio, halo, substituted amino, etc.; several specific exclusions] were prepd. as **herbicides**, desiccants, and defoliant's (no data). Thus, 3-EtC6H4Ac was condensed with PhCOCH:C(SMe)2 (prepn. given) in THF contg. KOCMe3; the product was cyclized in situ by refluxing with NH4Ac and added AcOH to give I (R1 = 3-Et, Z = SMe, other R = H). Over 100 I are listed with characterizing data.

IT **139421-28-6P 139421-29-7P**

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of, as **herbicide**)

RN 139421-28-6 CAPLUS

CN Pyridine, 2-(4-chlorophenyl)-6-(2-methylphenyl)-4-[(trimethylsilyl)ethynyl]- (9CI) (CA INDEX NAME)

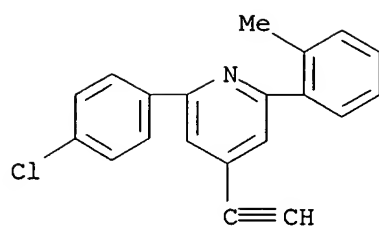


*The claimed groups can not have 2-aryl groups on the pyridine.*

RN 139421-29-7 CAPLUS

CN Pyridine, 2-(4-chlorophenyl)-4-ethynyl-6-(2-methylphenyl)- (9CI) (CA INDEX NAME)

10/087,066



L6 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2002 ACS  
 AN 1990:35858 CAPLUS  
 DN 112:35858  
 TI Preparation of 2-(2-imidazolin-2-yl)nicotinate as **herbicides**  
 IN Doehtner, Robert Francis; Ladner, David William; Finn, John Michael  
 PA American Cyanamid Co., USA  
 SO Eur. Pat. Appl., 48 pp.  
 CODEN: EPXXDW

DT Patent  
 LA English

FAN.CNT 2

|      | PATENT NO.                                            | KIND | DATE     | APPLICATION NO. | DATE     |
|------|-------------------------------------------------------|------|----------|-----------------|----------|
| PI   | EP 322616                                             | A2   | 19890705 | EP 1988-120594  | 19881209 |
|      | EP 322616                                             | A3   | 19891018 |                 |          |
|      | R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE |      |          |                 |          |
|      | IL 104751                                             | A1   | 19940530 | IL 1988-104751  | 19881212 |
|      | IL 104752                                             | A1   | 19940530 | IL 1988-104752  | 19881212 |
|      | JP 02000779                                           | A2   | 19900105 | JP 1988-329496  | 19881228 |
|      | BR 8806959                                            | A    | 19890829 | BR 1988-6959    | 19881229 |
|      | ZA 8809728                                            | A    | 19891025 | ZA 1988-9728    | 19881229 |
|      | CA 1337423                                            | A1   | 19951024 | CA 1988-587213  | 19881229 |
|      | DK 8807331                                            | A    | 19890701 | DK 1988-7331    | 19881230 |
|      | AU 8827583                                            | A1   | 19890706 | AU 1988-27583   | 19881230 |
|      | AU 612750                                             | B2   | 19910718 |                 |          |
|      | HU 49457                                              | A2   | 19891030 | HU 1988-6681    | 19881230 |
|      | HU 205832                                             | B    | 19920728 |                 |          |
|      | KR 9705304                                            | B1   | 19970415 | KR 1988-18228   | 19881230 |
|      | AU 9177208                                            | A1   | 19910808 | AU 1991-77208   | 19910521 |
|      | US 5334576                                            | A    | 19940802 | US 1992-855259  | 19920323 |
|      | DK 9301041                                            | A    | 19930917 | DK 1993-1041    | 19930917 |
|      | DK 9301042                                            | A    | 19930917 | DK 1993-1042    | 19930917 |
| PRAI | US 1987-139996                                        | A    | 19871231 |                 |          |
|      | US 1986-889999                                        | B2   | 19860728 |                 |          |
|      | IL 1988-88663                                         | A3   | 19881212 |                 |          |
|      | US 1989-397699                                        | B1   | 19890823 |                 |          |

AB The title compds. [I and II; R1 = C1-4 alkyl; R2 = C1-4 alkyl, C3-6 cycloalkyl; R1R2 = atoms to complete a (Me-substituted) C3-6 cycloalkyl ring; R3 = H, (substituted) C1-2 alkyl, C3-12 alkenyl, C3-6 cycloalkyl, C3-16 alkynyl, cation; R4 = C1-11 alkyl, ClCH2, (substituted) Ph; R5 = C1-4 alkyl, (Me-substituted) Ph; A = CO2R3, CHO, CH2OH, COMe, CPh, CN, Me, CH:NOH, CONHOH, 2-oxazolidinyl, etc.; B = H, COR4, SO2R5; W = O, S; Y, Z = H, Me, (hydroxy-substituted) C2-6 alkynyl, (substituted) C3-6 cycloalkyl, C1-4 alkyl, alkenyloxy, etc.] useful as **herbicides**, were prep'd. Thus, Me 5-bromo-2-imidazolin-2-yl) nicotinate, HC.tplbond.CC(OH)Me2, (Ph3P)2PdCl2, Ph3P, and CuCl were refluxed 72 h in Et3N to give alkynylpyridylimidazolone III. Several I at 0.5 kg/ha preemergent gave complete control of quackgrass, barnyardgrass, foxtail, velvetleaf, etc.

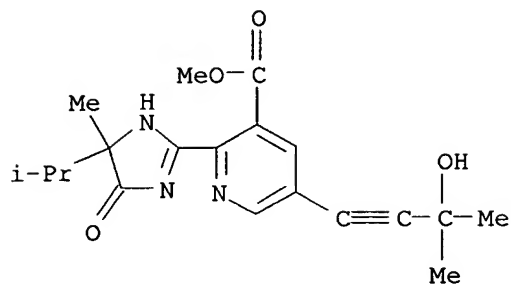
IT 124523-14-4P 124523-15-5P 124523-64-4P  
 124523-65-5P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of, as **herbicide**)

RN 124523-14-4 CAPLUS

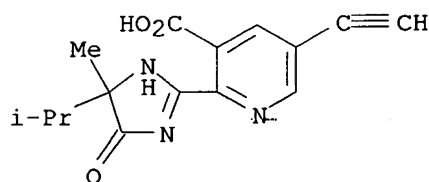
CN 3-Pyridinecarboxylic acid, 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-5-(3-hydroxy-3-methyl-1-butynyl)-, methyl ester (9CI)

(CA INDEX NAME)



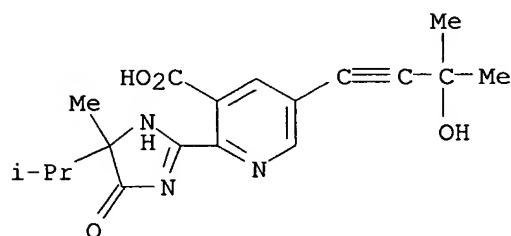
RN 124523-15-5 CAPLUS

CN 3-Pyridinecarboxylic acid, 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-5-ethynyl- (9CI) (CA INDEX NAME)



RN 124523-64-4 CAPLUS

CN 3-Pyridinecarboxylic acid, 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-5-(3-hydroxy-3-methyl-1-butynyl)- (9CI) (CA INDEX NAME)



RN 124523-65-5 CAPLUS

CN 3-Pyridinecarboxylic acid, 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-5-(1-propynyl)- (9CI) (CA INDEX NAME)

